

REMARKS

THE AMENDMENTS

Applicants amend claims 61, 68, 69, 73, and 75. Claim amendments are to expedite prosecution of the application. Claim amendments add no new subject matter, and are fully supported throughout the specification and by the drawings and claims as originally filed. Support and reasoning for the amendments are provided below.

Support for Claim Amendments and Reasons for Amendments

These amendments are made to clarify the claims and to expedite allowance of the present application.

The amended claims 61 and 73 include the phrase “structurally linked layers that are vertically oriented with respect to one another.” Support for these phrases can be found throughout the application as filed, for example, on page 15:

A “chip” is a surface on which at least one manipulation or process, such as a translocation, separation, capture, isolation, focusing, enrichment, concentration, physical disruption, mixing, binding, or assay can be performed. A chip can be a solid or semi-solid substrate, porous or non-porous on which certain processes, such as physical, chemical, biological, biophysical or biochemical processes, etc., can be carried out. A chip that performs more than one function can have combinations of one or more different functional elements such specific binding members, substrates, reagents, or different types of micro-scale structures that provide sources of different physical forces used in the processes carried out on the chip. Chips can be multiple force chips, in which different functional elements can be provided on the same surface, or in different structurally linked substrates or layers (where a layer is a surface that supports substrates, micro-scale structures, or moieties to be manipulated) that are vertically oriented with respect to one another. For descriptions of multiple force chips, see United States Application Number 09/679,024 having attorney docket number 471842000400, entitled “Apparatuses Containing Multiple Active Force Generating Elements and Uses Thereof” filed October 4, 2000, herein incorporated by reference in its entirety. (Emphasis added).

Amended claim 69 incorporates the phrase “an array of electro magnetic units.” Support for these phrases can be found throughout the application as filed, for example, on page 23:

“Traveling wave magnetophoresis” refers to the movement of a magnetic particle or magnetizable particle under the influence of a traveling magnetic field or a traveling magnetic wave generated by an array of electromagnetic units.

CLAIMS ARE NOVEL UNDER 35 USC §102(E)

1. Applicants' claimed invention is novel over the references prior to amendments. To expedite the allowance of the application, however, Applicants have amended claims to more clearly claim the invention. Applicants do so without prejudice to pursuing the original claims in another application. Applicants respectfully request that these rejections be withdrawn for the reasons set forth below.

The Examiner alleges that claims 61 through 64 and 66 through 71 are anticipated under 35 U.S.C. § 102 (e) by Anderson et al. (U.S. Patent No. 6,168,948). The Anderson et al. reference does not anticipate the claimed invention. The amended claims recite an integrated biochip including one or more multiple force chips comprising multiple functional elements in different structurally linked layers that are vertically oriented with respect to one another. The Anderson et al. reference does not report a structure having multiple functional elements in different structurally linked layers that are vertically oriented with respect to one another. Accordingly, the Anderson et al. reference does not anticipate the claimed invention.

For the foregoing reasons, Applicants submit that the amended claims cannot be anticipated by the Anderson et al. reference under 35 U.S.C. § 102 (e). Accordingly, Applicants respectfully request that this rejection be withdrawn.

2. The Examiner alleges that claims 61 through 64, and 66 through 78 are anticipated under 35 U.S.C. § 102 (e) by Christel et al. (U.S. Patent No. 6,363,871). The Christel et al. reference does not anticipate the claimed invention. The amended claims recite an integrated biochip including one or more multiple force chips comprising multiple functional elements in different structurally linked layers that are vertically oriented with respect to one another. The Christel et al. reference does not report a structure having multiple functional elements in different structurally linked layers that are vertically oriented with respect to one another. Accordingly, the Christel et al. reference does not anticipate the claimed invention.

For the foregoing reasons, Applicants submit that the amended claims cannot be anticipated by the Christel et al. reference under 35 U.S.C. § 102 (e). Accordingly, Applicants respectfully request that this rejection be withdrawn.

CLAIMS ARE NONOBVIOUS UNDER 35USC §103(A)

Applicants' claimed invention is non-obvious over the references prior to amendments. To expedite the allowance of the application, however, Applicants have provided amended claims to more clearly claim the invention. Applicants do so without prejudice to pursuing the original claims in another application. Applicants respectfully request that these rejections be withdrawn for the reasons set forth below.

The Examiner alleges that claim 65 is unpatentable due to obviousness under 35 U.S.C. § 103(a) over Anderson et al. (U.S. Patent No. 6,168,948) in view of Parton et al. (U.S. Patent No. 5,653,859). The cited references, Anderson et al., and Parton et al. fail to render the claimed invention obvious. The amended claims recite an integrated biochip including one or more multiple force chips comprising multiple functional elements in different structurally linked layers that are vertically oriented with respect to one another. The Anderson et al. and Parton et al. references, either alone or in combination, fail to suggest, teach, or provide motivation for using a structure having multiple functional elements in different structurally linked layers that are vertically oriented with respect to one another. Thus, the cited references, either alone or in combination, do not teach each and every element of the claimed invention.

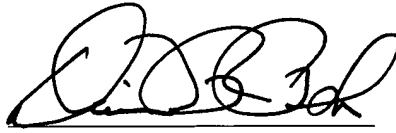
For the foregoing reasons, Applicants submit that the amended claims cannot be obvious over the Anderson et al. and Parton et al. references under 35 U.S.C. § 103 (a). Accordingly, Applicants respectfully request that this rejection be withdrawn.

Applicants submit that the claims are ready for examination and in condition for allowance.

Respectfully submitted,

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In the event this paper is deemed not timely filed the applicants hereby petition for an appropriate extension of time. The fee for this extension may be charged to Deposit Account No. 501,321 along with any other additional fees which may be required with respect to this paper; any overpayment should be credited to the account. If any fees charged to this account will exceed \$500, applicants respectfully requests that its counsel be notified of such amounts before the Deposit Account is charged.